

MYOCARDIAL REVASCULARIZATION

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Treatment of Infertile Patients with Adequate or Slightly Diminished Endogenous Estrogen with a Lack of LH Surge

In these patients, we have utilized either estrogen in the form of ethinyl estradiol (Estinyl®) —0.02 mg daily for three days, then twice daily for three days, then three times daily for three days—or clomiphene citrate—50 mg daily for five days and, if unsuccessful, 100 mg daily for five days. In about 85 percent of such patients, ovulation will be successfully induced, with the luteinizing hormone (LH) surge occurring four to six days after the last dose of clomiphene. If ovulation is not induced by these methods, human chorionic gonadotropin (HCG), 10,000 IU, is given four days after the last dose of clomiphene.

In regard to those patients who have low endogenous estrogen and low follicle-stimulating hormone (FSH) and no LH surge, administration of clomiphene in these patients is either increased in a daily dosage of 200 mg daily for five to seven days or it is given in a sequence of 100 mg daily for ten days. The administration of clomiphene to these patients frequently evokes release of FSH sufficient to produce follicular maturation, but LH burst is not, unfortunately, obtained; therefore, HCG (10,000 IU) is given four days after the last dose of clomiphene. The HCG acts in the same fashion as LH and is effective in rupturing the mature follicle.

If the above sequence is not effective in securing ovulation, or if apparent ovulation is produced for five to six consecutive cycles and pregnancy does not occur, we have, during the last two to three years, utilized a sequential regimen of clomiphene (giving 100 mg daily for seven days) followed by Pergonal® (75 IU of FSH, 75 IU of LH in each ampule), giving two ampules daily for 4 to 6 additional days. After a 4 plus fern test is obtained in the cervical mucus, a 24-hour urine collection is assayed for total estrogen. If the total estrogens in the urine do not exceed 100 micrograms, we feel safe in administering the HCG (10,000 IU after a 24-hour interval of no therapy). Usually, after eight ampules (two daily for four days) we give a step-down dose of one ampule daily for two days, skip one day, then administer the HCG. In order to prevent premature demise of the corpus luteum, HCG is given in a dose of 2,000 IU, four days after the first HCG. This sequence has resulted in 25 pregnancies in 70 treated patients.

—ROBERT W. KISTNER, MD, Boston
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